

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## A2 CC 1: Some Review for Exam1 Quarter 2

This review sheet is not comprehensive. Please look over your old exams, homework assignments, and notes to prepare fully spending time specifically on questions that you struggled with on those assessments. **PLEASE DO ALL WORK ON SEPARATE LINED PAPER. Due: Tuesday, November 28<sup>th</sup>**

For #1-2, perform the indicated operation and express the answers in simplest form

1. 
$$\frac{x^2 - 3x}{2x^2 + x - 6} \div \frac{x^2 - 5x + 6}{x^2 - 4}$$

2. 
$$\frac{x^2 - 9}{x^2 - 5x} \cdot \frac{5x - x^2}{x^2 - x - 12} \div \frac{x - 4}{x^2 - 8x + 16}$$

For #3-8, Factor completely

3.  $3x^2 - 12$

5.  $4x^2 - 6x - 4$

7.  $a^3 - 2a^2 + a - 2$

4.  $x^3 - x^2 - 6x$

6.  $5a^2 + 14a - 3$

8.  $x^2 + ax + bx + ab$

For #9-12, Simplify

9. 
$$\frac{5x^2 - 15x}{27x - 3x^3}$$

10. 
$$\frac{x^2 - 7x - 30}{x^2 - 5x - 24}$$

11. 
$$\frac{36x^3}{-42x^2}$$

12. 
$$\frac{y^2 + 3y - 28}{y^2 - 49}$$

For #13-16 Identify the value(s) of the variable, if any, for which the fraction is undefined

13. 
$$\frac{5}{3 - x}$$

14. 
$$\frac{10}{x^2 - 25}$$

15. 
$$\frac{x^2 - 49}{2x^2 - 3x}$$

16. 
$$\frac{x^2 - x - 2}{x^3 + x^2 - 2x}$$

For #17-20 Solve for all values of x.

17.  $x - \sqrt{9 - 2x} = 3$

18.  $\sqrt{2x + 1} - 1 = 4$

19.  $2\sqrt{2x + 3} + x = 1$

20.  $\sqrt{x - 1} + x = 7$

